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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,100	10/29/2003	Joel Jameson	4000735.0023	7104

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EXAMINER

BOYCE, ANDRE D

ART UNIT PAPER NUMBER

3623

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,100

Applicant(s)

JAMESON, JOEL

Examiner

Andre Boyce

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Non-final office action is in response to Applicant's amendment filed January 31, 2005. Claims 1 and 2 have been canceled. Claims 3 and 4 have been added and are pending.
2. The previously pending objection to the specification has been withdrawn.
The previously pending objections to claims 1 and 2 have been withdrawn.
3. Applicant's arguments, with respect to the 35 USC § 101 rejections and claim 3, filed January 31, 2005, have been fully considered but they are not persuasive. Further, Applicant's argument with respect to claim 4 is rendered moot in view of the new ground of rejection.

Specification

4. The disclosure is objected to because of the following informalities: in the amendment Applicant indicates that this application claims benefit to provisional application 60/514,637, however the USPTO has the provisional listed as 60/429,175. Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 3 and 4 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter.

For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case the independent claims 3 and 4 only recite abstract ideas. The recited steps of obtaining at least two weighting EFD's, accessing data contained in a foundational table, determining bin weights, accepting an ac-distribution, etc. does not involve, use, or advance the technological arts (i.e., computer, processor, electronically, etc.), since the steps could be performed using pencil and paper.

As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or field of use) or mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble. In the present case, none of the recited steps are directed to anything in the technological arts as explained above with the exception of the recitation in the preamble that the method is "computer-implemented". Looking at the claim as a whole, nothing the body of the claim recites any structure or functionality to suggest that a computer performs the recited steps. Therefore, the preamble is taken to merely recite a field of use.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case the claimed invention determines bin weights and arranges a transfer of consideration, thereby producing a useful, concrete, and tangible result, but not within the technological arts as explained above.

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Horrigan et al (USPN 6,493,682).

As per claim 3, Horrigan et al disclose a computer-implemented method for generating scenarios (multiple optimizations using different scenarios, column 6, lines 62-65) for subsequent use comprising the following steps: Obtaining at least two Weighting EFDS (i.e., forecasts in the form of distributions, wherein the joint distribution is between returns and order execution rates, column 4, lines 31-33); Accessing data contained in a Foundational Table (i.e., NxN diagonal matrix, where the investor has N securities to transact, column 11, lines 8-10 and 27-31); Determining bin weights that resolve non-convergence conflicts between two said Weighting EFDS and said accessed data contained in said Foundational Table (i.e., dependent variables segregated into bins, with the probability of ending up in one of the bins is estimated, column 20, lines 32-33); Using said bin weights to determine a first at least one weight for a first at least one row of said Foundational Table; Using said bin weights to determine a second at least one weight for a second at least one row of said Foundational Table (i.e., dependent variable may take on 10 values, ranging from 1 to 10, where a 1 corresponds to 0% filled, 2 corresponds to a fill rate $\geq 10\%$, etc., column 20, lines 33-38); Providing said first at least one weight, said second at least one weight, said first at least one row of said Foundational Table, said second at least one row of said Foundational Table as at least two scenarios in a form suitable for an entity that subsequently uses said at least two scenarios (i.e., the scenario may then be estimated using a generalized maximum likelihood estimation technique, column 20, lines 38-40).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horrigan et al (USPN 6,493,682), in view of Gould et al (USPN 5,966,700).

As per claim 4, Horrigan et al disclose a computer-implemented method to share risk between at least two parties (i.e., determination of whether or not to place an order using a risk averse investor's expected utility maximization, column 4, lines 54-57) comprising the following steps: accepting an ac-Distribution (i.e., joint distribution, column 4, lines 31-33), comprising at least two bins (i.e., dependent variables segregated into bins, with the probability of ending up in one of the bins is estimated, column 20, lines 32-33); using said accepted ac-Distributions (i.e., joint distributions) and said accepted contract quantities (i.e., amount to trade) to determine a PayoffMatrix comprising at least two rows and at least two columns (i.e., NxN diagonal matrix, where the investor has N securities to transact, column 11, lines 8-10 and 27-31); determining which of said at least two bins subsequently manifests (i.e., probability of ending up in a bin); arranging a transfer of consideration based upon said PayoffMatrix (i.e., determining the scenario using a generalized maximum likelihood estimation technique, column 20, lines 38-40).

Horrigan et al does not explicitly disclose accepting a distribution, comprising at least two bins, from each of said at least two parties and accepting a contract quantity from each of said at least two parties. Gould et al disclose managing the allocation of risk between a mortgage originator and a funding institute (column 2, lines 21-24), including an agreement between the two parties which defines rates, fees, and total dollar amount (i.e., contract quantity, column 4, lines 20-25). Further, Gould et al disclose determining whether certain rates and fees fall within an acceptable tolerance value of an external fee (i.e., bin separation), and substituting the existing rate and fee schedule for a new one (column 7, lines 28-34). Both Horrigan et al and Gould et al are concerned with optimizing risk aversion, wherein Gould et al disclose allocating risk among parties, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include accepting a distribution, comprising at least two bins, from each of said at least two parties and accepting a contract quantity from each of said at least two parties in Horrigan et al, as seen in Gould et al, as an effective means of distributing the risk among a plurality of investors in Horrigan et al, thus making the system more efficient.

Response to Arguments

11. In the Remarks, with respect to Applicant's arguments concerning the rejections under 35 USC § 101, the Examiner respectfully submits that the phrase "technological arts" is synonymous with the phrase "useful arts" as it appears in

Article I, Section 8 of the Constitution. *In re Waldbauem*, 173 USPQ 430 (CCPA 1972). And for a claim to be statutory it must be in the technological arts. *In re Musgrave*, 167 USPQ 280 (CCPA 1970) and *In re Johnston*, 183 USPQ 172 (CCPA 1974). The technological arts inquiry must focus on whether the claim subject matter is statutory. *In re Toma*, 197 USPQ 852 (CCPA 1978). *Toma* held “that the method of enabling a computer to translate natural languages is in the technological arts, i.e., it is a method of operating a machine.” Further, the invention in the body of the claim must recite technology. If the invention in the body of the claim is not tied to technological art, environment, or machine, the claim is not statutory. *Ex parte Bowman*, 61 USPQ2d 1665, 1671 (BD. Pat. App. & Inter. 2001) (Unpublished). Also note MPEP 2106 IV 2(b).

With respect to claim 3, Applicant argues that Horrigan et al does not disclose resolving non-convergence conflicts between two said Weighting EFDs. The Examiner respectfully disagrees and submits that Horrigan et al disclose dependent variables segregated into ordered bins and the probability of ending up in one of the bins (column 20, lines 32-33). The calculated probability determines the bin weights, wherein the dependent variables segregated into the ordered bins indeed resolves non-convergent conflicts.

Conclusion


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


-Jameson (USPN 6219649) discloses allocating resources in the presence of uncertainty.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (571) 272-6726. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


adb
April 28, 2005


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